

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. XXXX

FOR
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR MAINTENANCE DREDGING OPERATIONS
SACRAMENTO-SAN JOAQUIN DELTA
(GENERAL ORDER)

This Monitoring and Reporting Program (MRP) describes requirements for monitoring dredging operations, dewatering facilities, dredged materials, effluent, and receiving waters in accordance with the requirements of the General Order. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. Regional Water Board staff shall approve specific sample station locations prior to implementation of sampling activities.

All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to test pH, turbidity, and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated prior to each monitoring event;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

In the event that any turbidity measurements exceed the limits specified in Section F(3) of this General Order, dredging operations and/or discharge shall cease immediately, and an additional water sample shall be taken immediately at the point of exceedance. This sample shall be analyzed for toxicity with an acute toxicity bioassay and the results reported to the Regional Water Board. The report of turbidity exceedance and steps taken to comply with the provisions of this Order shall be reported immediately by phone, fax or email to the Regional Water Board. Dredging and/or discharge shall be suspended until turbidity levels return to levels in compliance with Section F(3) of this General Order, or as otherwise instructed by the Regional Water Board.

DREDGE OPERATION MONITORING

Sampling, described in the Dredge Operation Monitoring Table of this MRP, shall be conducted anytime dredging operations are performed including site preparation and debris removal. Grab samples shall be taken at approximately 2/3 of the total depth of the water body and shall be taken from the following stations:

<u>Station</u>	<u>Description</u>
R-1	In an area up current and undisturbed by the dredging operation, not to exceed 300 feet from the dredge operation.
R-2	Within 300 feet down current of the dredge suction head or clamshell.

Other monitoring points may be required at the dredge site if the pre-dredge analysis shows contaminants of concern may have the potential to cause toxicity at the dredge site. Samples shall be collected and analyzed from Stations R-1 and R-2 as follows:

DREDGE OPERATION MONITORING TABLE

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency¹</u>
Dissolved Oxygen	mg/l	Grab/field Meter	Every 4 Hours
Temperature	°F or °C	Field Meter	Every 4 Hours
pH	Standard units	Grab/field Meter	Every 4 Hours
Turbidity	NTU	Field Meter	Every 4 Hours

¹. Samples shall be collected immediately before dredging begins each day, at four-hour intervals while dredging operations are in progress, and shall continue until all in-water work has ceased for the day. A final sample shall be collected after dredging operations have ceased each day.

DEWATERING FACILITY MONITORING

For hydraulic dredging operations that include placement of dredged slurry in settling ponds, monitoring shall commence immediately after dredged material and/or slurry water is initially discharged into the dewatering facility. Monitoring shall continue until the settling ponds are free of water². Any ponded water shall be sampled for the parameters specified below:

DEWATERING FACILITY MONITORING TABLE

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Freeboard	0.1 feet	Measurement	Daily ¹

Odors	--	Observation	Daily ¹
Dissolved Oxygen ^{2,3}	mg/l	Grab/Field Meter	Weekly
pH ²	Standard units	Grab/Field Meter	Weekly
Levee condition ⁴	--	Observation	Weekly
Electrical Conductivity ²	umhos/cm	Grab/Field Meter	Weekly

¹ Inspections for freeboard measurements and odors shall be performed daily during the normal business week (i.e. Monday through Friday).

² Samples shall be collected at a depth of one foot (or at mid-depth when water level is less than one foot) from each pond in use, opposite the inlet. DO samples shall be collected between 7:00 and 9:00 am.

Monitoring for dissolved oxygen, pH and EC may cease when ponded water depth is less than 0.5 feet.

³ If odors are detected during the daily site inspection, then the Discharger shall conduct daily monitoring for dissolved oxygen until the odors are abated, and immediate notification shall be provided to the Regional Water Board.

⁴ Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees. If surfacing water is found, then a sample shall be collected and tested for pH and total dissolved solids.

INTAKE WATER MONITORING

If effluent water from a dredged material dewatering facility is discharged back to surface waters, and Intake Water Credits are authorized in the Notice of Applicability (NOA), then intake water monitoring is required. In order to determine ambient background concentrations, monitoring shall conform to specifications contained in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP), Section 1.43.

EFFLUENT MONITORING

If effluent discharge to receiving waters occurs from the dewatering/settling ponds, the effluent from the dewatering/settling ponds shall be monitored at the overflow weir or discharge pipe during discharge to the receiving waters. Samples shall be representative of the volume and nature of the discharge. Initial sampling shall be conducted within 1 hour of the initiation of discharge. Effluent monitoring shall include the following:

EFFLUENT MONITORING TABLE

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency¹</u>
Flow	mgd	Meter	Continuous
Turbidity	NTU	Meter	Daily
pH	Standard units	Grab/meter	Daily
Temperature	°F or °C	Grab/meter	Daily
Dissolved Oxygen	mg/l	Grab/meter	Daily
Electrical Conductivity	umhos/cm	Grab/meter	Daily

¹ Except for pH and temperature, grab samples shall not be collected at the same time each day.

In addition to the monitoring described in the Effluent Monitoring Table, additional constituents of concern may be identified by the Regional Water Board staff after reviewing the pre-dredge sediment and elutriate analysis. The Notice of Applicability will include a list of any further constituents of concern to be monitored, and the required sampling protocol.

RECEIVING WATER MONITORING

The Discharger shall conduct receiving water monitoring when discharging effluent to surface waters. If no effluent is discharged, then receiving water monitor does not need to be performed. Receiving water monitoring stations are located as follows:

<u>Station</u>	<u>Description</u>
R-3	Up current of the discharge location and undisturbed by the effluent discharge. Not to exceed 300 feet upstream from the point of discharge.
R-4	Within 100 feet down current of the point of discharge.

Receiving water monitoring shall include at least the following:

RECEIVING WATER MONITORING TABLE

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Dissolved Oxygen	mg/l	Grab/field meter	Daily
Temperature	°F or °C	Measurement	Daily
pH	Standard units	Grab/field meter	Daily
Turbidity	NTU	Meter	Daily

In addition to the monitoring described in the Receiving Water Monitoring Table, additional constituents of concern may be identified by the Regional Water Board staff after reviewing the pre-dredge analysis and project application. The Notice of Applicability will include a list of any further constituents of concern to be monitored, and the required sampling protocol.

When conducting the receiving water sampling, a log shall be kept of the receiving water conditions. Notes on receiving water conditions shall be summarized in the monitoring report.

Attention shall be given to the presence or absence of:

- | | |
|---------------------------------|--|
| a. Floating or suspended matter | e. Visible films, sheens, or coatings |
| b. Discoloration | f. Fungi, slimes, or objectionable growths |
| c. Bottom deposits | g. Potential nuisance conditions |

d. Aquatic life

h. Flow Direction

i. Upstream Conditions

DREDGE MATERIAL REUSE MONITORING

The discharger shall be required to implement a monitoring program for reuse applications that have a significant potential for impacting water quality either through surface erosion and/or leaching to groundwater. As required, monitoring for erosion shall continue until the Discharger has demonstrated that erosion control measures have adequately stabilized the placed dredged material.

REPORTING

The specified parameters shall be monitored as previously described, and reported at a minimum of once per month, with violations reported to the Regional Water Board Staff within 2 hours of the discovery of the violation. This violation notification to Regional Water Board can be done by either telephone or e-mail. Written confirmation and description of the violation shall follow within 2 weeks.

If the project is in operation and/or monitoring is required for more than one month, Monthly Monitoring Reports shall be submitted to the Regional Water Board Staff no later than 15 days from the end of the month in which monitoring is conducted.

Monthly Monitoring Reports shall include:

- 1 The date, time, manner, and exact place of sampling;
- 2 The name of person(s) taking samples;
- 3 The dates of sample analyses (if any) and the person(s) performing the analyses;
- 4 The analytical methods used;
- 5 The results of the analyses;
- 6 A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements;
- 7 Copies of any laboratory analytical report(s); and
- 8 Calibration logs verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program.

In reporting monitoring data, the Discharger shall arrange the data such that the date, sample type (e.g., effluent, equalization basin, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable.

The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported to the Regional Board.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by:

PAMELA C. CREEDON, Executive Officer

(Date)